

Disclosed is an optical-electrical wiring board, comprising an electrical wiring board having a through-hole formed therein and an optical wiring layer laminated on the board and including a core and a clad surrounding the core. The electrical wiring board includes an electrical wiring formed on one surface of the board and pads on which optical parts are mounted. The pads are electrically connected to the electrical wiring and arranged on one surface of the electrical wiring board in the vicinity of a through-hole. The core includes a horizontal waveguide for propagating the light beam in a horizontal direction along the electrical wiring board and a vertical waveguide having a part arranged inside the through-hole and crossing the horizontal waveguide. The vertical waveguide propagates the light beam in a direction perpendicular to the electrical wiring board.